FLAVOR YOUR MUSIC

How to export your artist's background images and biography to your Zune HD

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FLAVOR YOUR MUSIC

HOW TO EXPORT ARTISTS BACKGROUND IMAGES

TO THE ZUNE HD

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1. INTRODUCTION

This is a tutorial on how to export artist's background images to the Zune HD.

When Zune HD was first launched in 2009, It presented a way on how music would be displayed on the Zune HD device. One of the great features it had was to display artist's background images that were to be blended with the now playing display on the Zune HD screen. It would also provide visual playback of those images while the music would continuously be played. It provided a very unique listening and visual experience between the user and the Zune device. Also, another feature is that you would have access to biography that was provided and displayed for each artist. These features would of have worked if the Zune HD would be connected to the internet and would retrieve the artists pictures and biography from the running Zune database. However, that database no longer exists.

I have spent a couple of years just to figure out on cracking out the mechanism of this. I have managed to do it and it is very complicated on how it works. So I have written this easy condensed tutorial on how to export artists background images on the Zune HD device.

I have included some programs that will make this tutorial simplified with very minimal syntax.

WHAT IS INCLUDED IN THIS TUTORIAL AND WHAT THE TUTORIAL WILL INVOLVE:

When you have extracted the “Zune Metadata Export.zip” file that you have downloaded, you should of have received the following:

Zune HD image exportation.pdf - the one that you are viewing now.

Special software - free to use software to be used in conjuction with this tutorial.

Zune HD Metadata - which contains up to 150 folders which are to be assigned for up to 150 artists where images and biography are to be stored.

By exporting artist's background images and biography to the Zune HD, this tutorial will involve the following:

Installing software

Modifying the hosts file

Assigning an artist to a folder in which it would contain special files and where pictures and biography are to be placed. These folders are found in the "Zune HD Metadata" folder (I have provided up to 150 folders for up to 150 artists and each one will have it's own folder).

Working inside the artists folder by:

- Adding the artist's name to a small audio file.
- Adding biography to a xml file (This is optional if you do not need biography for your artist).
- Adding pictures for visual playback and adding a thumbnail for the main Zune HD menu.

Making copies of files - One for the music library folder in which the Zune software uses and a file and folder for the Abyss Web server folder So the Abyss server can use the files to deliver images and biography to the Zune HD.

To deliver a special audio file from the Zune software to the Zune device and to run the Abyss Web Server in order to get images and biography on your Zune HD.

PLEASE READ:

DISCLAIMER: I will not be responsible for any harm and/or loss of data that has been done to your computer and/or to your Zune HD device.

This tutorial will involve in altering the hosts file. It is HIGHLY recommended that you use the program HOSTSMAN that is included so that it would eliminate the risk of the hosts file being corrupted.

This tutorial will also involve deleting your artists music (if any) on your Zune HD and to be added back to your device after following all the steps to add pictures and optional biography to your Zune HD.

I have written this tutorial to be followed on Windows 7 Service Pack 1. I have never tried it on Windows 10 because I have heard of so many issues of installing and running the Zune software on Windows 10 (I know that Abyss Web Server, Hostsman, Notepad + +, mTail and GIMP can be installed and can run on Windows 10) - but if you can get the Zune software to run and want to follow this tutorial on Windows 10 - do so at your own risk.

SPECIAL THANKS TO:

Netrix - For creating the Liberate app for the Zune HD and for itsnotabigtruck - for creating special apps for the Zune HD - There apps have helped me out a lot with my research on the mechanics on the Zune HD - Both of these developers who wrote these apps were part of the Zune Boards forum.

Aprelium - for creating such as awesome web server that helps keeping the Zune HD legacy alive.

abelhadigital - For creating Hostsman for safe hosts file editing.

Wim Heirman - for creating IP Viewer.

Don Ho - The developer(s) of Notepad + +

Martijn Coppoolse - Who wrote the HTML plugin for Notepad + + (A very valuable plugin to prepare Zune HD biography text).

Spencer Kimball, Peter Mattis and the GIMP Development Team - For creating the GIMP image editing tool that may be used in part of this tutorial.

Olivier PHILIPP - The creator of mTail.

And to Microsoft - For the Zune HD player! - it was (And it still is!) - an awesome player but sadly - it was underated!

2. SOFTWARE REQUIREMENTS AND INSTALLATION

This tutuorial is designed to work on Windows 7 Service Pack 1.

You must have the Zune Software (version 4.8.2345) installed and to be able to connect your Zune HD to your computer to communicate with the Zune Software.

You must also have an active router connection.

When you have extracted the “Zune Metadata Export.zip” file, you were given a folder (Special Software) that contains free software that you need to install to use with this tutorial:

SOFTWARE NAME:	**IT'S PURPOSE:**
Abyss Web Server X1 (Version 2.14)	To communicate with Zune HD.
Hostsman (Version 4.7.105)	To safely edit the hosts file.
IP Viewer 20	To quickly obtain an IPv4 address**
Notepad + + (Version 7.8.9 64-bit)	To Edit and prepare biography text.
HTML Tag Plugin (Version 1.1.0)	A plugin to be used in Notepad + +
GIMP (Version. 2.10.24)	To edit a thumbnail image***
mTail Ver. 1.9.18	To monitor a log file that is inside the Abyss Web Server main folder. This program requires no installation.

**This is old software but if you cannot install this software, there is a workaround in obtaining your IPv4 address.

*** Installing this is optional unless you want to follow a part of a tutorial on how to create a thumbnail for your artist for your Zune HD in which it will be described later.

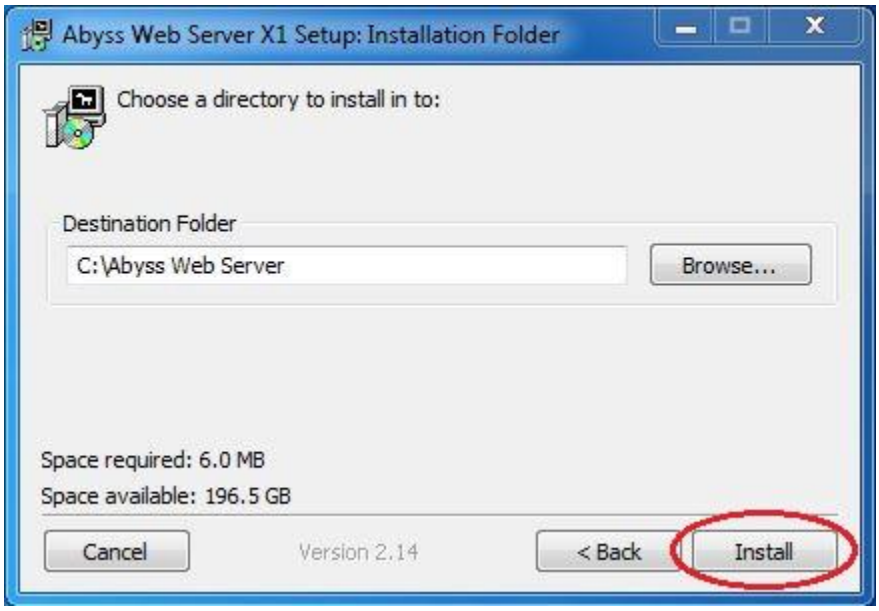
INSTALLATION INSTRUCTIONS:

For Abyss Web Server X1:

Install Abyss Web Server on your computer (By running the file "abwsx1.exe").

At the beginning of the installation, after when accepting the license agreement, you will be presented a dialog of what components to install.

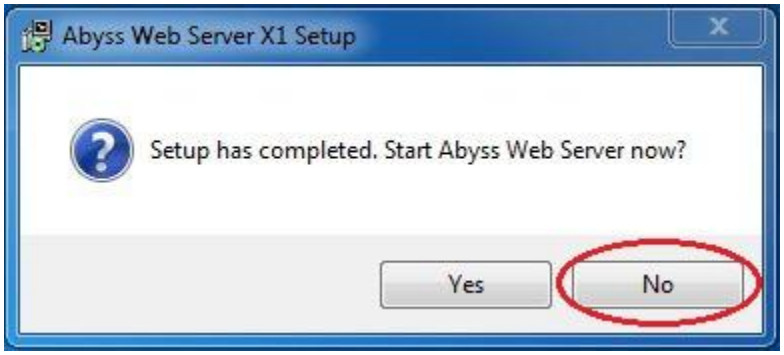
Leave everything as it is (Unless you want to install the 32 bit version) so click "**Next"** and then you will click "**Install"** at the next dialog box:



While you are near at the end of the installing process you will also be prompted this dialog:

You will want to select **Manual startup** (Circled in red) so you can control of when you want to deliver your Zune HD metadata content. Then you click "**OK**".

Then at the end you will get the last dialog box that setup is completed and if you want to start the Abyss server: you click "**No**".



And then, with the last dialog box showing your installation progress has been completed, you click "**No**".

After when installation is complete you will go inside to your Abyss Web Server folder (Which is located in your hard drive) and delete the folder "htdocs" because it will be replaced with another "htdocs folder" which will contain your image files and biography for your Zune HD, later in this tutorial.

SPECIAL NOTES:

Don't run the server just yet. If you run the server accidentally for the first time, you will be prompted a dialog that a configuration file was created. Just simply abort it by closing the dialog box (By clicking “X” on the top right corner) and go to the Abyss Web Server folder to delete the "abyss.conf" file because there will be a configuration file that will be added later in this tutorial.

Abyss Web Server, when it is on, uses port 80. Make sure that later in this tutorial before you run the Abyss Web Server that you close all applications that are running on port 80 if any (Such as the Apache server, Skype or any other applications). Making an attempt to run the Abyss Web Server with other running applications that are using port 80 will result in a pop up message displaying "Cannot start the console (listening problem)".

Also, you may be given a prompt regarding Windows Firewall:

Just click on "**Allow Access**".

If you already have Abyss Web Server installed in your computer and use it for different applications then you will want to move the folder "htdocs" and the file "abyss.conf" to a different location apart because you will have identical ones with different files that will be used to follow this tutorial.

For Hostsman Ver. 4.7.105

Install Hostsman (By running "HostsMan_Setup.exe").

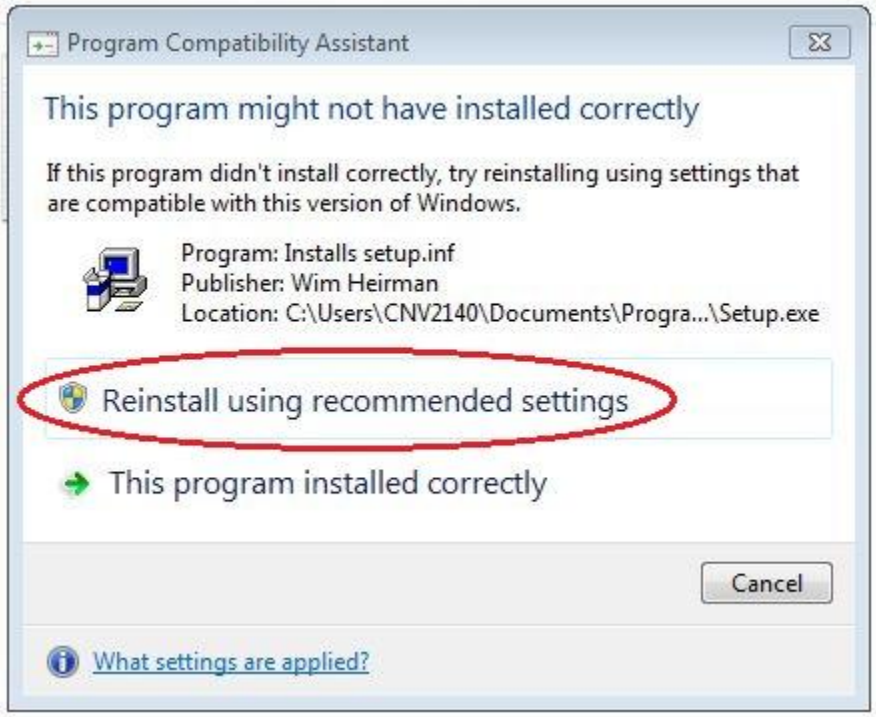
For IP Viewer20:

1 First, install the Visual Studio Runtime by running the file "vb5run.exe" which is located in the "VS Runtime" folder (It has to be installed in order to use IP viewer).

2 Then after that, install IP Viewer by running "Setup.exe" which is located in the "IPview20" folder.

NOTE:

Because this program was written for Windows XP SP2, you may encounter this dialog that the program might not have installed correctly:



Should this happen, then just click on "**Reinstall using recommended settings**" and it will reinstall. It has worked on Windows 7 and I have had no issues of running it. But should you encounter a problem with the installation or if the program can't run then there is a workaround in retrieving your IPv4 address which will be taught later.

For Notepad + + v7.8.9:

Install Notepad + + by running "npp.7.8.9.Installer.x64.exe".

After when you have Notepad + + installed you will also need to install the plugin "HTML Tag":

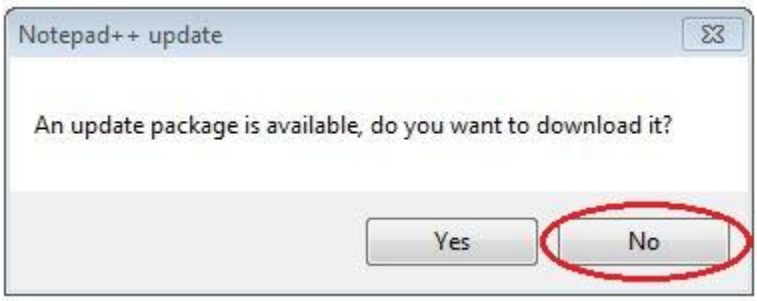
1 Copy the Folder "HTML Tag" which is located in the "Special Software" folder that you have downloaded.

2 Paste the folder inside the "plugins" folder (Location: "C:\Program Files\Notepad++\plugins").

SPECIAL NOTES:

The HTML Tag plugin will be used to prepare biography text that will be merged into an XML document file "biography.xml" in which the Zune HD uses to display biography on your device. This plugin has been modified for that purpose so DO NOT download another copy of it somewhere else. Doing so and using it to prepare the XML biography file will render the XML biography file useless and the biography on the Zune HD will not be displayed so - use ONLY the plugin that was supplied in this tutorial.

Also because this plugin is no longer supported - It has so far worked in this version of Notepad + + that was included in this tutorial. If you run Notepad + + for the first time, you may be given this dialog box:



You may want to click "**No**". However, if you do decide to update Notepad + +, you may run into a small chance of the HTML Tag plugin not working just so you are aware.

After when you get everything installed, you may want to create shortcuts for easy access:

LINKS TO EXECUTABLE FILES TO CREATE SHORTCUTS:

NAME:	FILENAME:	LOCATION:
Abyss Web Server	abyssws.exe	C:\Abyss Web Server
Hostman	hm.exe	C:\Program Files (x86)\HostsMan
IP Viewer	ipview20.exe	C:\Program Files\WimsPrg
Notepad + +	notepad++.exe	C:\Program Files\Notepad++
mTail	mTail.exe	Self-executable
GIMP	gimp-2.10.exe	C:\Users\Account name\AppData\Local\ Programs\GIMP 2\bin

3. CONFIGURING THE HOSTS FILE

A long time ago, When you used to plug in your Zune HD into your computer while your computer was being connected to the internet, Your Zune would communicate with the Zune database (www.catalog.zune.net) so it would download and update metadata into your music collection inside your Zune device.

With editing the hosts file, we will enter a couple of domain names and then map them with your current IPv4 address into the hosts file so that when the Zune is being connected to your computer, it will directly communicate with the Abyss Web Server to do the process of exporting images and biography to your Zune HD.

In this part of tutorial, we will use Hostsman and IP Viewer to easily configure the hosts file.

But first - lets start in how to obtain your local IPv4 address so that you can enter it in your hosts file:

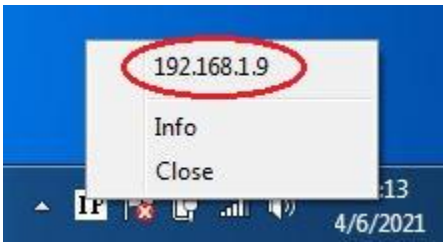
SPECIAL NOTE: If you cannot install and run IP viewer, skip to the next page on the special notes at the end.

1. Run IP viewer.

2 . After running, A small icon will appear next to the clock at the lower right corner of the screen.

The icon will look like this:

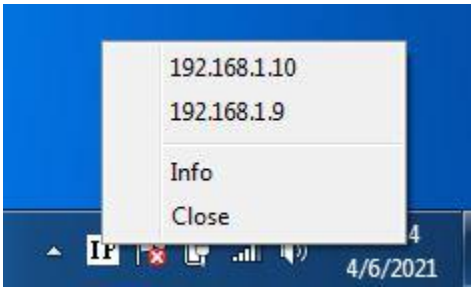
click on it and a small box will appear:



On top of that small box is an eight to ten digit number which is your IPv4 address (Circled in red) - to copy it, all you have to do is to click on it.

SPECIAL NOTES:

If you have an ethernet connection and a wireless connection both on your computer, you will have two different IPv4 addresses listed (See below).



The top one is your IPv4 ethernet wired connection and the bottom number is your IPv4 wireless connection - You can select any of them BUT a wireless connection would be preferred if you have a laptop and you do a lot of moving around with your wired ethernet being disconnected.

IF YOU CANNOT RUN IPVIEWER

As I have mentioned before, this is a very old application. But there is an alternative way in getting your IPv4 Address using Command Prompt:

1. Hold down the Windows key and hit R and when the run dialog box has been displayed, type cmd in the open field and click "**OK**" OR Go to Start/All programs/Accessories and click on command prompt:
2. Inside the command Prompt/cmd box type "ipconfig" and hit enter
3. At the beginning of the result, you will have your windows IP Configuration displayed - Either with the ethernet adapter Local Area Connection or the Wireless LAN adapter Wireless Network Connection or both - either one has the IPv4 address but if you do have both, then again, I would use the IPv4 with the wireless network. Write or record you IPv4 so you will use it in Hostsman.

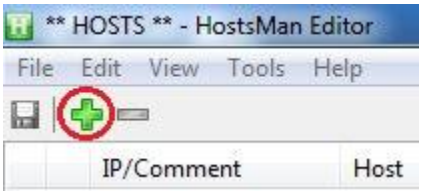
3. Run Hostsman.

4. After running, a box will pop up and then you will want to click on "**Run as Administrator**" because you will need administrative privilages to modify the hosts file.

5. After that, the box will pop up again but this time you will then click "**Editor**" on the lower left of the box.

6. A full screen will pop up with your hosts file being displayed and now, we are going to make some entries.

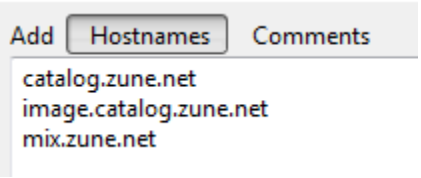
7. On the upper left corner of the screen is a green plus sign (Circled in red):



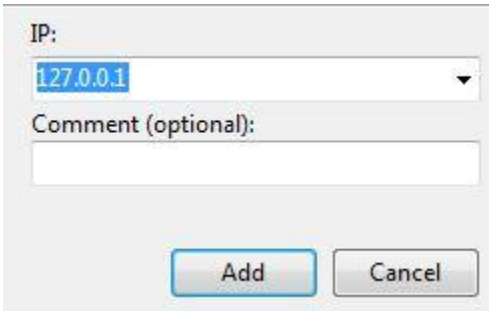
Click on it to add an entry and it will expand a new box.

8. In that new box on the left, you are going to enter domain names so what you need to do is copy the domain names below - and paste them into this box (As illustrated next below):

catalog.zune.net
image.catalog.zune.net
mix.zune.net



9. On the right side of where it got expanded you will see an IP address (127.0.0.1) that is already highlighted:



You are going to change this as this will be associated with your domain names that you have entered. So first - copy your IPv4 address using IP Viewer (or from command prompt) as described previously and then, right click on the highlighted IP address and click paste to use the IPv4 address that you have selected (or you can type it in). Then

after that, just below the comment field is the "**Add"** button: click on it to add your entries in the hosts file.

10. Click on the **File** tab and click "**Save**" to save changes to your hosts file and then click on the **File** tab again and then click "Exit" to close the screen. After that, you will still have that Hostsman dialog box - Just click on the **Hosts** tab and click "**Exit**" to close the application.

THINGS TO KNOW:

From time to time, your IPv4 address may change.

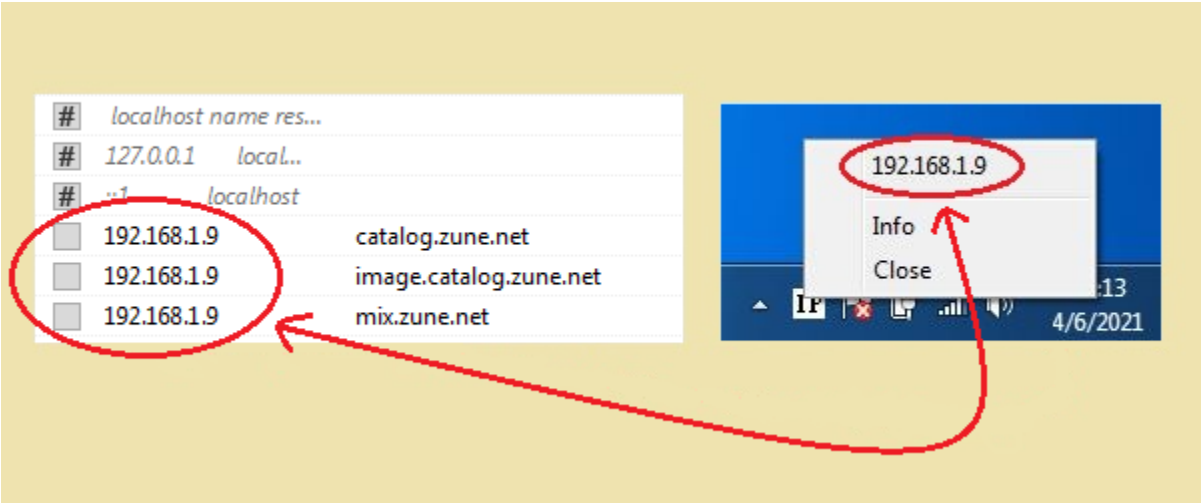
If can also change IF:

-You have recently resetted your router.

-You have switched to a different network (Like using a WiFi at a coffee shop or using a different local network).

So if it has been a long while (one week or more) since you have exported metadata to your Zune HD, you may want to check to see if your current valid IPv4 address matches the ones (For both entries with domain names "catalog.zune.net" and "image.catalog.zune.net") in your hosts file. If they don't, then you need to replace the IPv4 address in your entry with your current valid one otherwise, your Zune HD device will not be able to communicate with the Abyss Web Server.

Open your Hosts file using Hostsman with administrative privileges, view your IPv4 addresses that are inside the entries with the domain names "catalog.zune.net", "image.catalog.zune.net" and "mix.zune.net", then view your current IPv4 address using IP Viewer (or through command prompt) and compare them both to make sure that both IPv4 addresses do match:



If you do need to change the IPv4 address in an entry, do the following:

1. copy your current valid IPv4 address using IP Viewer or obtain the current one through command prompt.

2. On the entry in the hosts file, on the pointer over the IPv4 address, left click once to highlight the whole entry and then, left click again to highlight the IPv4 address.

3. Paste the new valid IPv4 address over the highlighted one and hit **enter** (or type it in and hit **enter**) and then, save changes.

4. ASSIGNING THE ARTIST TO A TEMPLATE FOLDER AND MAKING MODIFICATIONS

When you have downloaded this tutorial, you were given a folder "Zune HD Metadata". This folder contains up to 150 folders and can be used for up to 150 artists. Each artist will have its own folder which will be used to store images and biography that are related to that artist. You cannot have two or more artists to share a folder.

Each folder for an artist will have two folders which contain files. There is one called "Header" which conains a small music file (Zune UUID Header) that will be asssigned to the artist. The other folder "Abyss Documents" contains a folder "htdocs" which contains special XML files (one of them is biography.xml in which you will be working on for your biography) and a folder that you will add pictures which will be used for the Zune HD. The other file "abyss.conf" is a configuration file that contains special instructions on how to deliver images and biography to the Zune HD. It is to be left untouched and unedited.

Once you have assigned an artist to a folder, there will be some files that will have to be edited as mentioned above. One is that small audio file in which the artists name will be added to it. Then there is "biography.xml" in which the artists biography will be added to it (This is optional and you do not have to have it on your Zune) and then, you will be adding 7 images and a thumbnail image to a folder.

After when all of this is completed, you will make a copy of your small audio file to the Zune software music library. Then you will make copies of the "htdocs" folder and the "abyss.conf" and to put them in the Abyss Web Server folder in your hard drive. And then when the times comes, you will drag the audio file to your Zune device, run the Abyss Server and start exporting files to your Zune HD.

TO GET STARTED:

1. Go inside the Zune HD Metadata folder, pick a folder and rename that folder to an artist of your choice.

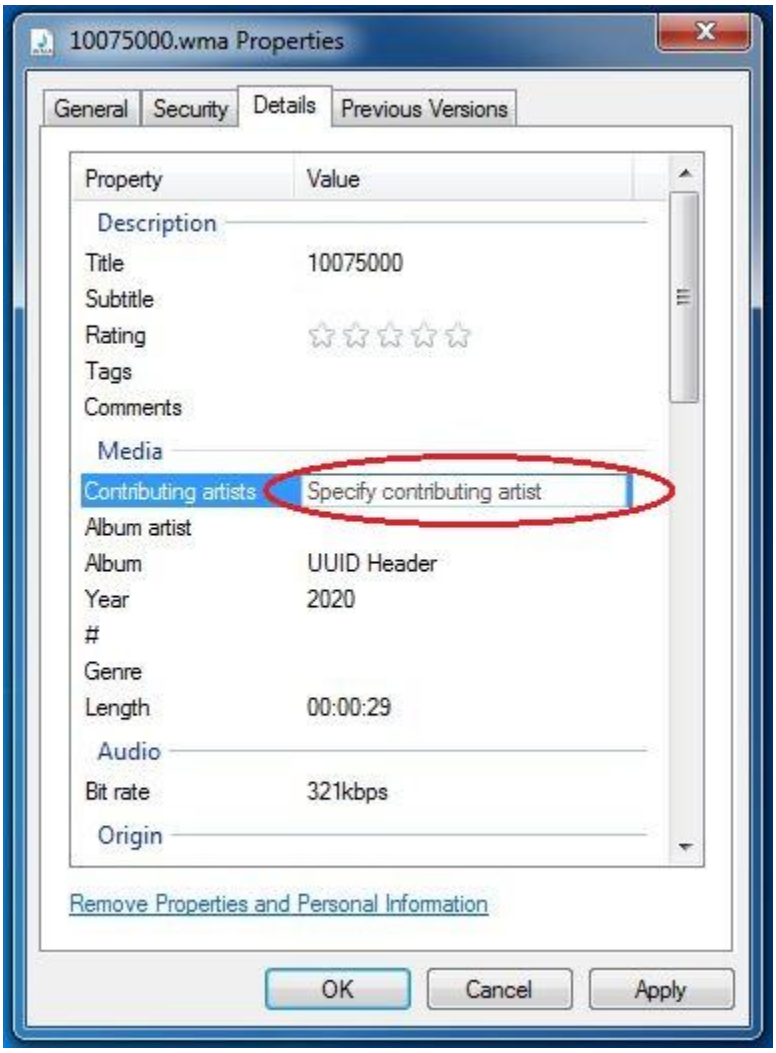
2. Go inside the artists folder. It will be your working folder.

ASSIGNING THE ARTIST TO THE HEADER:

1. Go inside the "Header" folder.

2. You will see a small audio file "Zune UUID Header" - Right click on it and select "**Properties**":

3. In the dialog box (See below), click on the "**Details**" tab and under media, there is a field for "Contributing Artists" - Type in your Artists name in this field (Circled in red) and then hit **enter**. Then click "**Apply**". Then click "**OK**" to finish.



ADDING BIOGRAPHY

NOTE: If you do not wish to have biography for your artist on your Zune HD, then you need to delete the file "biography.xml" (Which is located in Abyss Docs/htdocs/Zune HD Metatdata Files/XML Documents) in your artists folder. Deleting this file won't hurt your Zune device but the biography part will never be displayed.

The following procedure will involve in entering biography text, nullifying characters by "escaping" them with HTML tag and merging them into the "biography.xml" document. The artists name will also be entered in the XML Document as well.

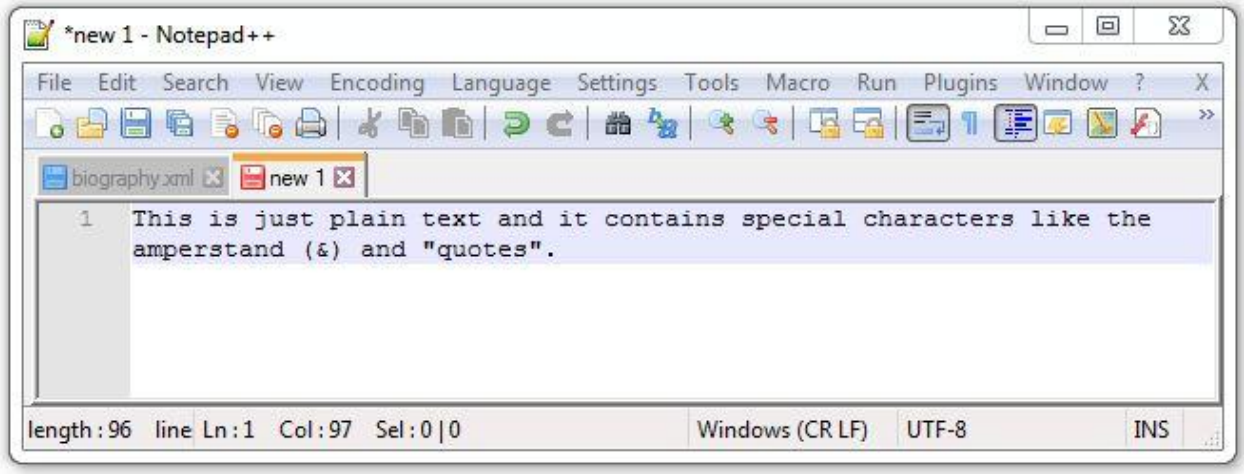
1. Open Notepad + +

NOTE: If you will be using notepad + + for the first time, you may be prompted to update notepad - just click "No". Also, you may need to see the whole text on the screen. To do this click on the "**View**" tab on top and then click on "**Word wrap**" on the drop down menu.

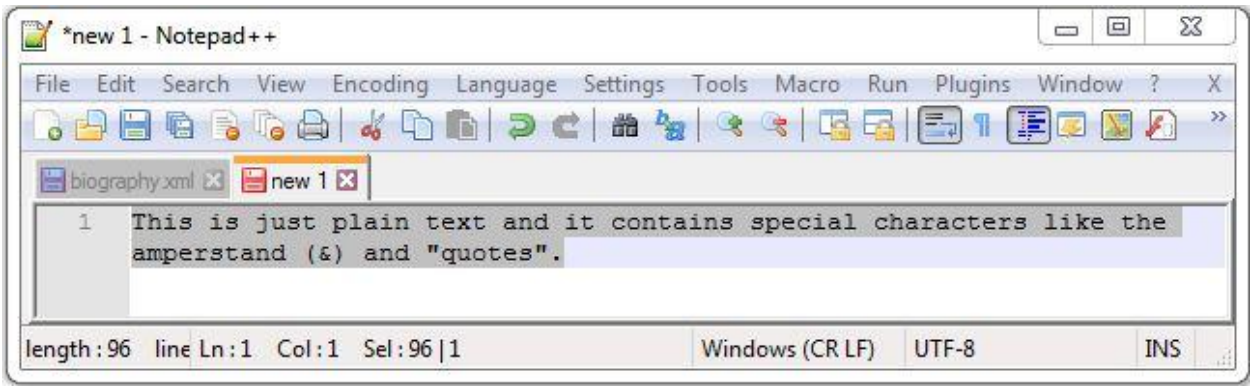
2. Click on the "**File**" tab and then at the drop down menu click "**Open**", Then in the Open dialog box go to your artists folder, Navigate to Abyss Docs/htdocs/Zune HD Metatdata Files/XML Documents, select "biography.xml" and then click "**Open**".

3. Click on the "**File**" tab and then at the drop down menu click "**New**". Then, a new tab will appear right next to the "biography.xml" tab.

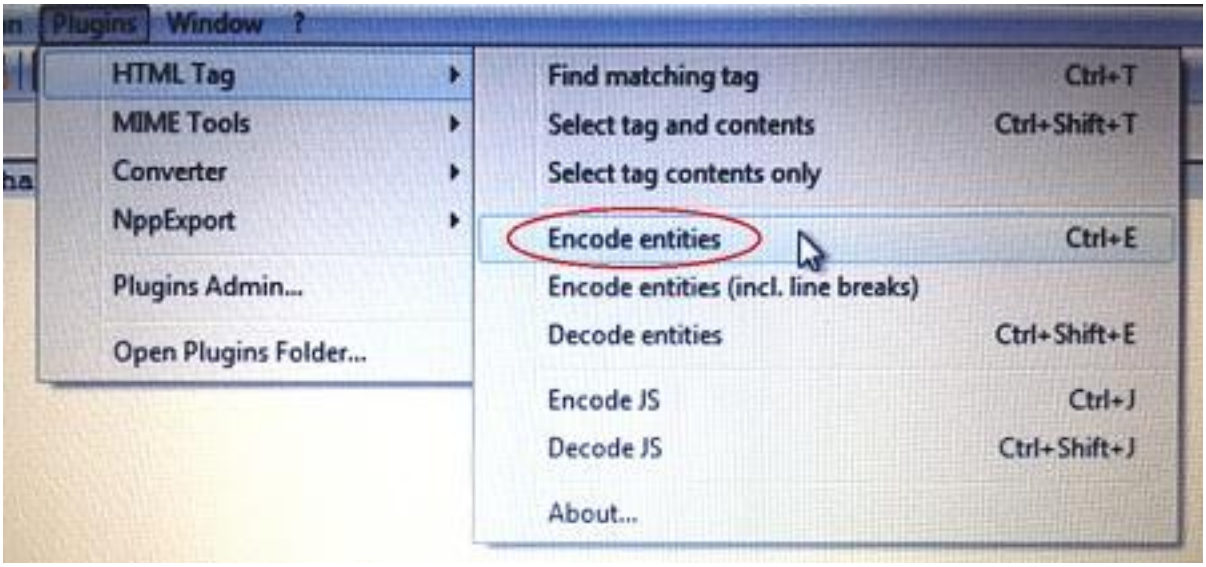
4. Go enter your Artists biography in the "new1" tab. (I will place a fair amount of text to demostrate as illustrated below):



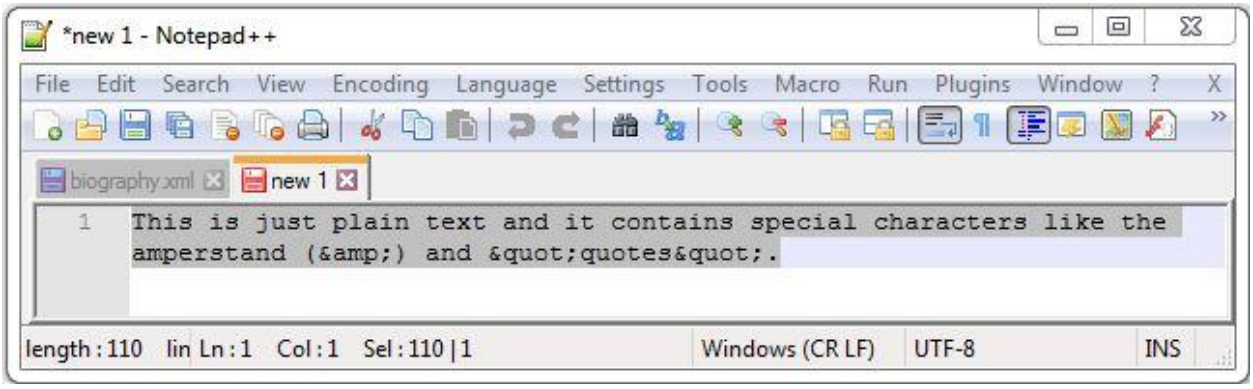
5. On the text that you have entered, right click on it and then click "**Select All**" then, it should be highlighted in grey (As illustrated in the next page):



6. On the top of the screen: Click "**Plugins**" then on the drop down menu point to "**HTML Tag**" then it will expand a box to the right - Move the pointer to the right and go down to click "**Encode Entities**" or just hit **Ctrl+E** (As illustrated below):



7. You will notice some changes or a lot of changes in the text:

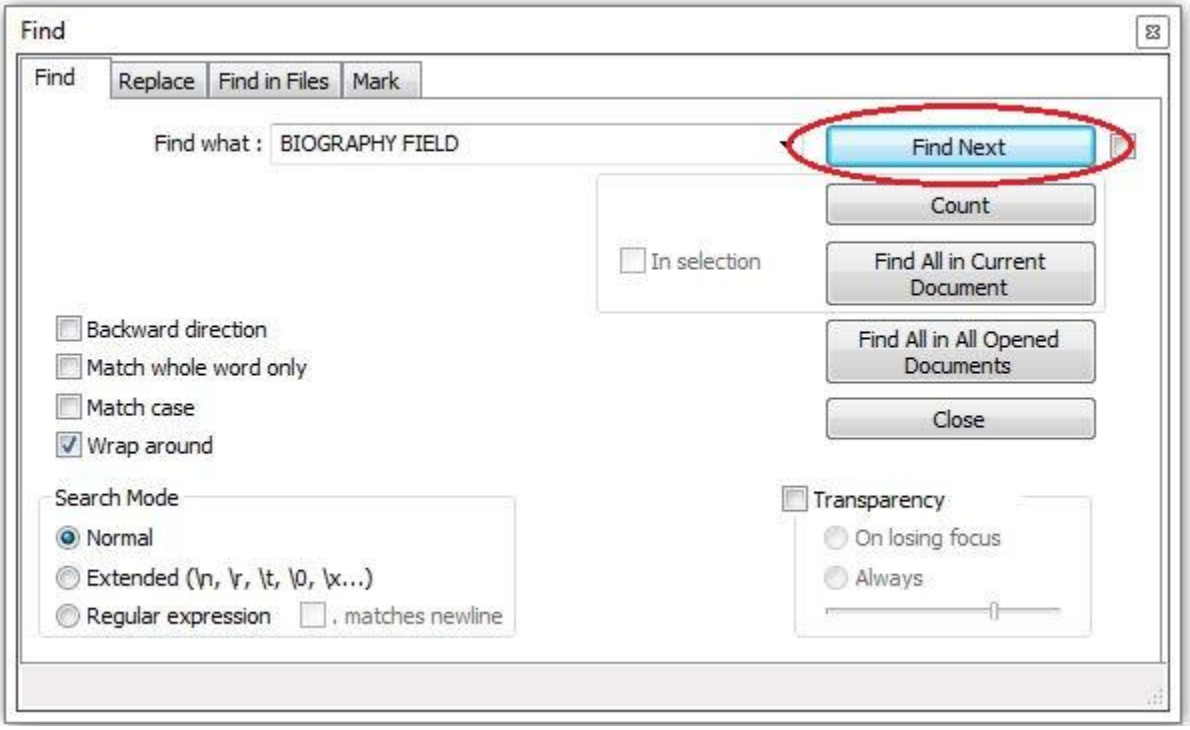


but this is only to get the text ready to be merged for the XML document so what you need to do while it is highlighted is right click on it and click "**Copy**".

8. Now switch your tab to Biography.xml, which is located on the upper left screen to view the xml document.

9. On the top of the screen click "**Search**" and then on the drop down menu click "**Find**" or Hit **Ctrl+F**

10. In the Find dialog box, you will enter "BIOGRAPHY FIELD" in the "Find what" field, then click "**Find Next**" (As illustrated below). Then close the dialog box.



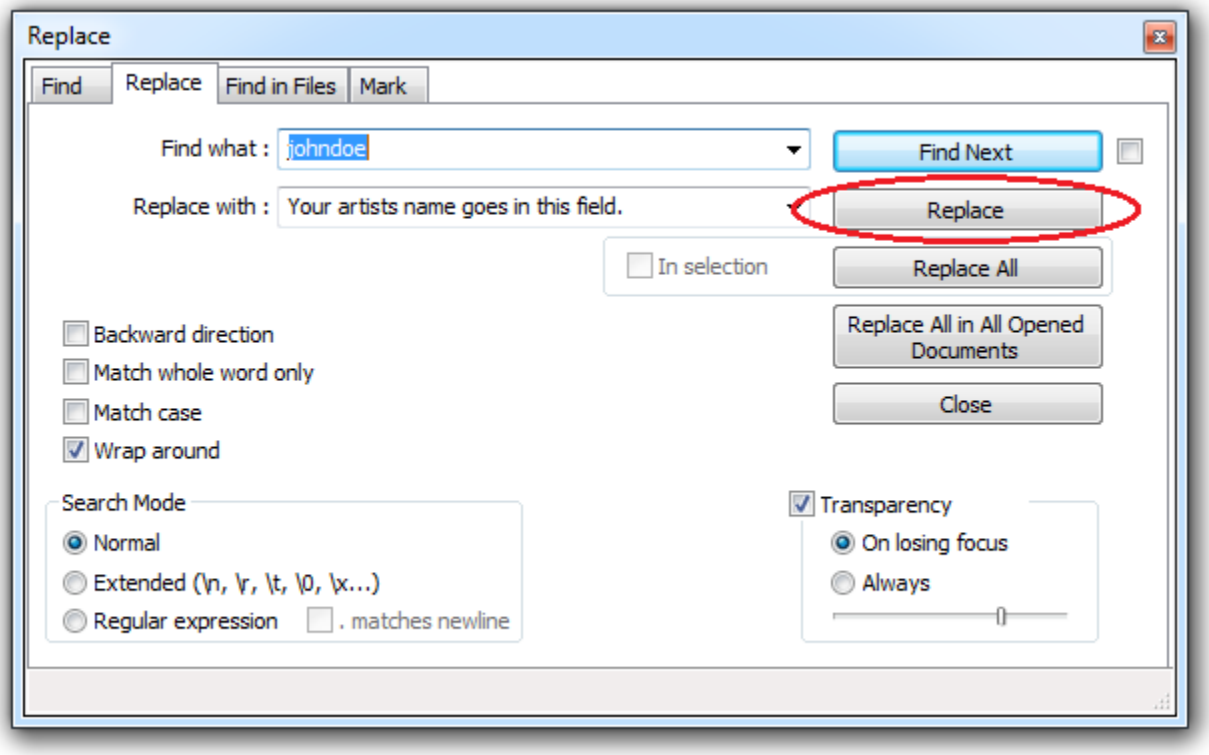
11. Where you see on the XML Document, "BIOGRAPHY FIELD" is Highlighted in grey:

Right click on that highlighted area and click "**Paste**" and you will paste your artists biography in that field. The results should be like with the text I have used which is higlighted in grey (As shown in next page):

```
<?xml version="1.0" encoding="utf-8"?><a:entry xmlns:a=
"http://www.w3.org/2005/Atom" xmlns:os="http://a9.com/-/spec/opensearch/1.1/"
xmlns="http://schemas.zune.net/catalog/music/2007/10"><a:link rel="self" type=
"application/atom+xml" href=
"/v3.0/en-US/music/artist/10075000-0200-11db-89ca-0019b92a3933/biography" />
<a:updated>1900-01-01T00:00:00.0000000Z</a:updated><a:title type="text">johndoe
</a:title><a:id>
tag:catalog.zune.net,1900-01-01:/music/artist/10075000-0200-11db-89ca-0019b92a3933/
biography</a:id><a:content type="html">This is just plain text and it contains
special characters like the amperstand (&amp;amp;) and &amp;quot;quotes&amp;quot;.
</a:content><a:author><a:name>Microsoft Corporation</a:name></a:author></a:entry>
```

12. To enter your artists name in the XML document: On the top of the screen click "**Search**" (or hit **Ctrl+H**) and then on the drop down menu click "**Replace**"

13. In the Replace dialog box (As illustrated below), you will enter "johndoe" In the "Find what" field, then enter your Artists name in the "Replace with" Field. Then click on "**Replace**" and you will see "johndoe" highlighted in green in the XML document where the artists name will be pasted. Click "**Replace**" again to paste your artists name in that green area. Then close the dialog box.



14. On top of the screen click "**File**" and at the dropdown, click "**Save**" to save modified changes to the Biography XML Document and then go and close Notepad + +

To see if the "biography.xml" is error free, you can open it on your favorite browser and if it does display all the script and your biography text, then the file will work on the Zune HD.

ADDING IMAGES

Your Zune HD can accommodate 7 background images plus one thumbnail image for each artist. The images and the thumbnail are to be placed in the "Images" folder which is located in Abyss Docs/htdocs/Zune HD Metatdata Files. The images folder contain a small text file which is a reminder of what pixel sizes should be for each image.

Each image will be named in numerical order from 1 to 7 (For example you will name the first one "1.jpg"). The recommended pixel size for each of these images should be 480 pixels in width by 328 to 1008 pixels in height. This is usually the normal size for all the artists background images that were downloaded from the Zune database before. It is not recommended to put images of greater pixel size than specified because I have tried this and it did worked but sometimes, the visual playback would get very sluggish so - it is recommended to use the pixel sizes specified.

The thumbnail ("thumb.jpg") is a small file of a thumbnail image of the artist (or any kind of imagery if you prefer) that the Zune HD will use under the "History" of what has been played in the Zune HD main menu. The recommended size for this picture is 160 x 120 pixels (Ratio 4:3). When making a thumbnail image, the headshot of a person (or group of persons) must cover 50 to 60 percent of the top of the image. I have some pictures of what they should look like and what they do look like in the Zune HD main menu as shown in the next page:

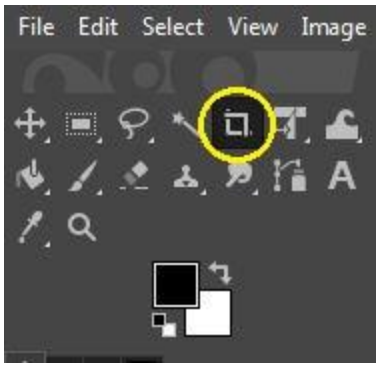
It is kind of tricky to produce a thumb image of an artist so I will give some advice on how to create a good thumbnail image with some illustrations below:

First, you will need the proper image editing software. I would recommend GIMP (Version 2.10.24) - It is a free open source application that is included in the "Special Software" folder that was downloaded. Go ahead and install GIMP as it will be used in this part of tutorial.

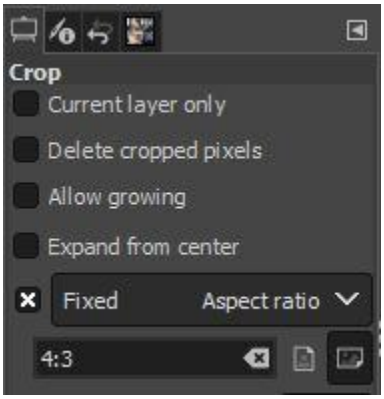
IMPORTANT NOTE: When starting to install GIMP, when you get to the main setup dialog box, click on "**Customize"** instead of "**Install**" because you will want to create a desktop shortcut. The executable file is hard to find.

Then, find a good picture with high resolution with your artist in it. Then open the image with GIMP already installed.

With GIMP opened, you will go to the upper left screen and you will see a square of icons. You will want to click on the crop icon (Which is illustrated in the next page and is circled in yellow):

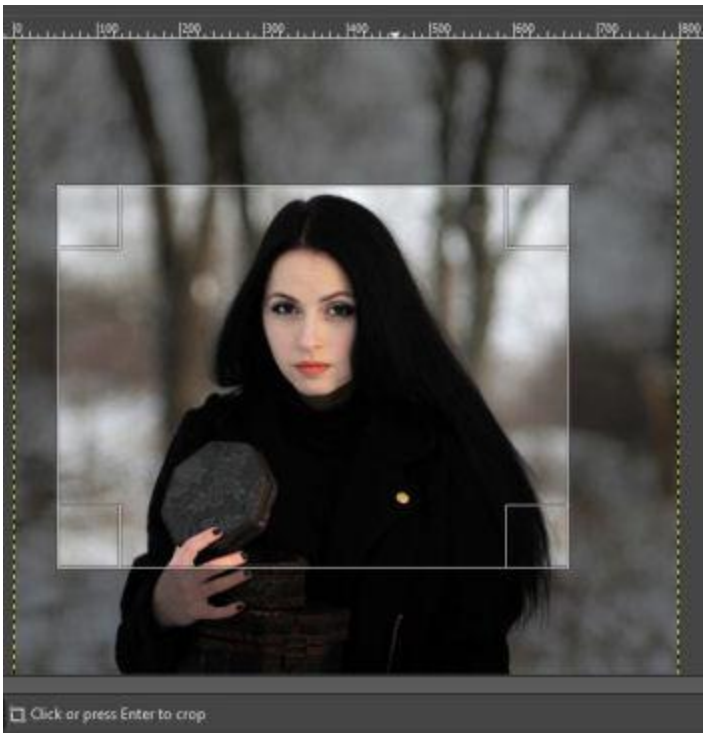


Then, you will see a box area with cropping options. Select "Fixed" and click on the down arrow to expose the drop down menu and you will select "Aspect ratio" and then, at the small box at the bottom you will enter 4:3



Then, you will move your pointer on the upper left corner of the image and while you hold the left button on your mouse down, scroll down diagonally to the lower right to form a box which will be your cropping area. You can change the size by moving any of the corners or sides of the cropping area while you hold down the left mouse button and you can move the whole cropping area by placing the pointer at the center and hold down the left side of the mouse to move it

Adjust the cropping area so that the headshot (or a group of headshots) would cover about 50 to 60 percent of the upper half of the cropping area. (See illustration next page):



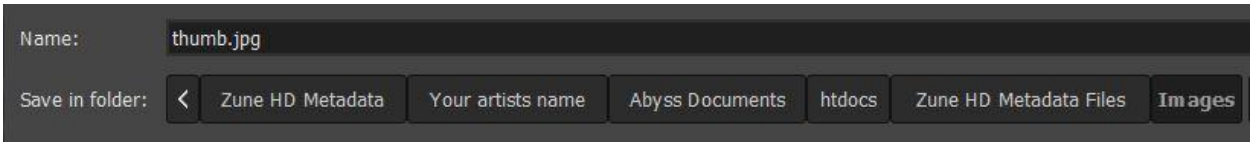
Use your best judgement. Hit enter to crop the image and then, On top of the screen click "Image" and then at the drop down menu select "Scale image" and then a scale image dialog box will appear. For image size, enter 160 for width and 120 for height and then, click "**Scale**".

Then use the plus key to zoom in the image and the negative key to zoom out. If you do not like the results, Go to the "**Edit**" tab and select "**Undo Resize image**" a couple of times to start over.

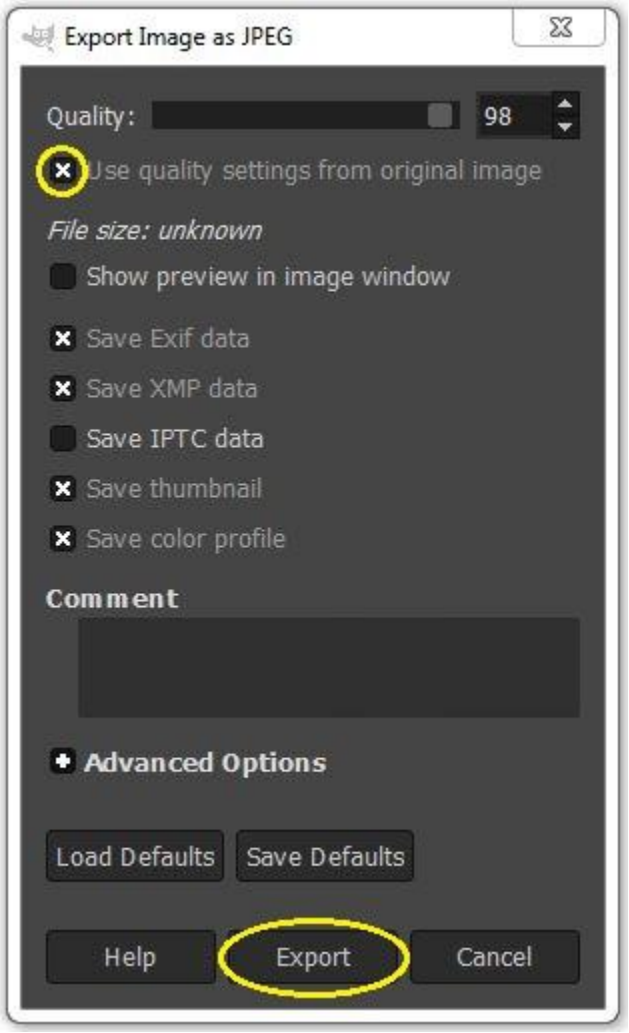
If you do like the results, then export the image in jpg format, name it to "thumb.jpg" and save it to the “Images” folder by doing the following with an illustration below:

Click on "**File**" and then on the drop down menu, click "**Export as**" or hit **Shift+Ctrl+E**:

On the Export image dialog, first navigate to the "Images" folder (Which would be located in your “Artist's folder/Abyss Documents/htdocs/Zune HD Metadata Files”) in the Save in folder field, then type in "thumb.jpg" in the filename field and then hit enter.



Then, you will see a dialog "Export image as JPEG" - Make sure that "Use quality setting from oringinal image" is checked and then click on "Export" to save your thumbnail image.



5. REMOVING, COPYING AND DRAGGING FILES

IMPORTANT NOTE FOR ADVANCED USERS: Make sure that the Abyss Web Server is turned OFF and that you move the "htdocs" folder and the "abyss.conf" file to a different location before you proceed with this next tutorial.

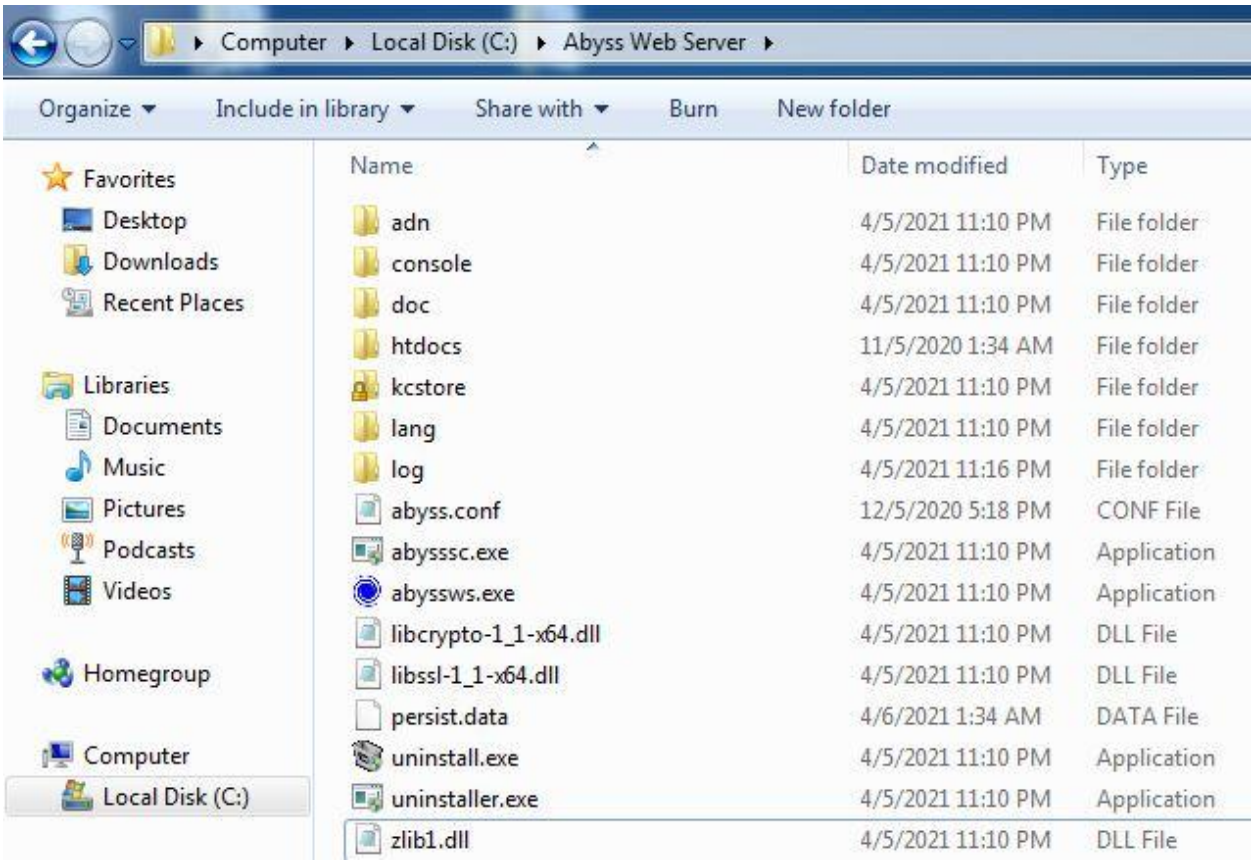
Now that you got your artists folder all set up, you are going to make some copies from the contents of your artists folder to the music folder the Zune software uses and to the Abyss Web Server main folder in your hard drive. And then, you will transfer a small audio file to your Zune device and will transfer metadata files to the Zune HD by using the Abyss Web Server.

But first...

1. If you have any music on your Zune HD that is related to your artist, then it needs to be deleted off your Zune device. The reason for that is when you first transfer that small audio file that is related to your artist to your Zune device, it will first read some information that is vital and needed to communicate with the Abyss server. It will NOT read it if there is any other music files of the same artist present in your Zune device. So before you delete your music in your Zune player, MAKE SURE that you have backup copies on hand.

2. Make a copy of the Zune UUID Header audio file (Which is located in your Artists folder/Header folder) and place it inside of your music folder in which the Zune Software uses (It's typically "C:\User\Account name\My Music) but you can double check by launching the Zune Software and click into "Settings".

3. Makes copies of the "htdocs" folder and the "abyss.conf" file from your Artists folder/Abyss Documents folder and place them into the Abyss Web Server Folder which is in your hard drive (Typically C:). After you do that, it should look like whats in the Abyss Web Server main Folder in the next page:



4. Open the Zune Software.

5. With your Zune device plugged in and ready, go find that UUID audio file that you have just pasted inside your main music folder (See below the image) and drag it to your Zune device. the transition should take only about 4 seconds.

6. Close the Zune Software.

7. Turn off your Zune HD device, but leave the device plugged in.

THE FINAL STEP: EXPORTING IMAGES AND BIOGRAPHY TO THE ZUNE HD

You are about to follow some procedures in order to get the Zune device to communicate with the Abyss server and to export image files and biography. but before you do that, there are some things you need to know:

The amount of time it takes to export your files to your Zune may or may not take any longer but it all depends on how many artists you have on your Zune device. I will explain further:

When you first turn on the Zune HD, after when the boot process is finished, the Zune device will start scanning artists for any updates that is inside the Zune. The scanning process starts within 12 to 15 seconds after when the home swipe screen is displayed.

The scanning order for all the artists will be from the one that was first imported to the one that was most recently imported (Which is the case, your artist UUID header). The scanning process for each artist involves the device to check for any updates and any missing information for each artist. The amount of time it takes for the Zune device to scan for each artist is about 4 seconds or a lot less.

So to give you an idea on how long it would take to export your image files and you bio to your Zune device: If you have for example 25 artists on your Zune HD you would multiply 25 (Artists) X 4 (seconds) then you would have a total of 100 seconds plus 15 seconds (The time from the start screen to the end of that amount of time in where it starts scanning) then you would have an estimated total of 115 seconds which is about two minutes of wait time. The wait time will vary depending of what needs to be updated. It can be a lot less (Don't be surprised if it happens in a very short time). It gives you an idea of how much time it may take to export files to your Zune HD.

The other thing is that it is not recommended while the Zune is in the process of scanning files is that you go to your artists UUID header and check to see if the images are already installed as this can interfere with exporting images to your Zune device. (You can if you want to and a lot of times it will work out but there is always a small chance you may get some missing images and/or no biography.). So at best, it is recommended to let your Zune HD to take it's own course.

The only way that you can know if your artists images and biography are installed in your Zune device is to monitor a log file (access.log) that the Abyss server uses to record

of any requests made from your Zune device to the server. You can easily do this with an application that monitors any changes in text in real time.

I have found an application which is called mTail (A self-executable that is included in this tutorial) that is to be very helpful. It will not only help you to monitor and display the requests made from your Zune to the server but it can also alert you when a specific group of text (a set of numbers from your UUID header) has been flagged in a request line. Very helpful if you have a very long wait time and instead of staring at the screen, you can be notified from a playback sound.

To get started:

1. Make sure that you have a local network (router) connection and that you close any applications that are using port 80 so that the Abyss Web Server will be able to run in this part of tutorial.

2. Launch the Abyss Web Server. There will be a pop up dialog that will appear in the middle of the screen for a very short moment telling you that the Abyss Server is running and active.

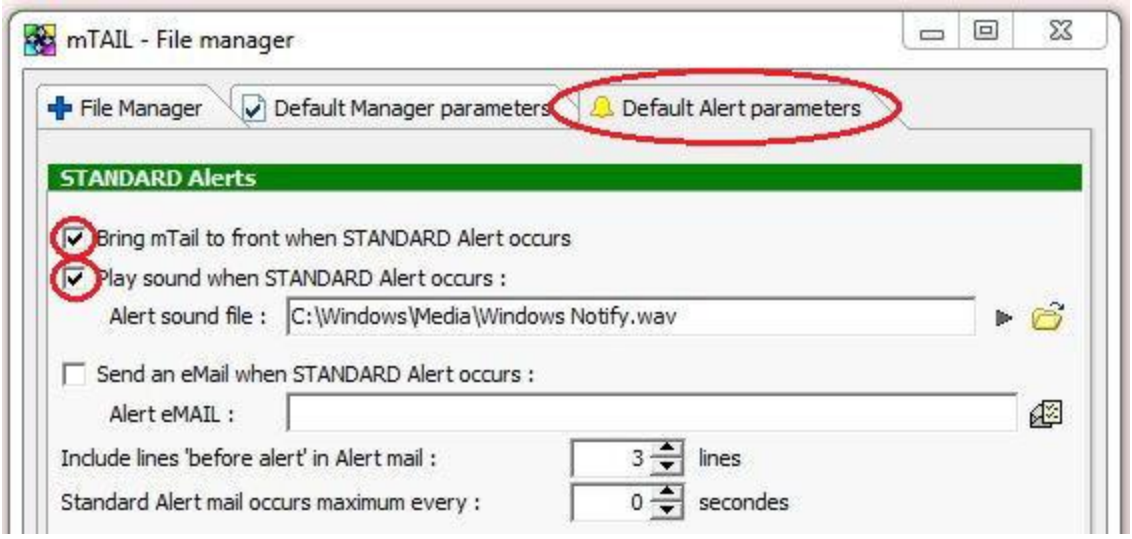
3. Launch mTail (mTail.exe).

4. If you using mTail for the first time, then you need to configure alerts.

To do this:

Click on the icon on the upper right corner that has a group of papers icon with a plus sign which is circled in red (see below):

And then, a dialog box will appear (Illustrated on next page). Click on the "Default Alert parameters" tab:



And then, on the Standard Alerts section make sure that the boxes "Bring mTail to front when STANDARD Alert occurs" and " Play sound when STANDARD Alert occurs" are both checked. Then you will add a sound file to use for your alerts by clicking on the folder icon and navigate to "C:\Windows\Media\Windows\Notify.wav" (You can use a different one if you like) and then click "Open". Then you can click "**OK**" on the lower left corner to save changes.

5. While you are on mTail, click on the folder icon on the upper left corner and on the file search dialog box (Make sure that the "Files of Type" is set to "Log File"), navigate to "C:\Abyss Web Server\log\access.log" and then, click "**Open**" to monitor this file.

6. To set alerts: check on the box which is next to "Alert" and then, a dialog box will appear. Just click on "Hide" to make it disappear and then, Copy the 8-digit number that is in your artist UUID Header (Either one from your music files or one from your Artist's metadata folder) and paste it in the field which is next to "Alert" (see next page for illustration):

7. Then on the upper right corner, click on "Start" (See below) to start monitoring the access.log file.

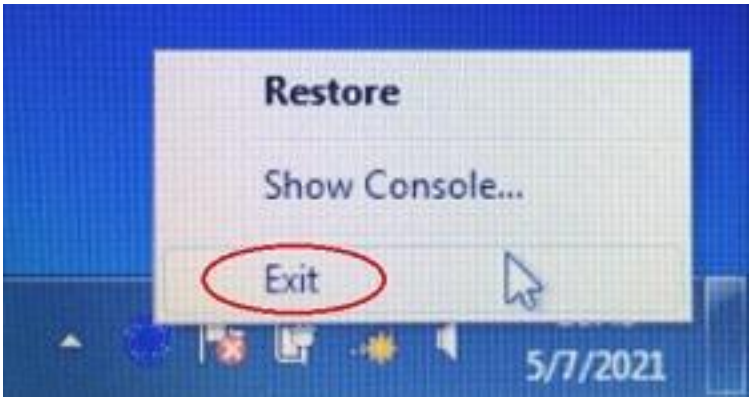
8. With the Zune device pluggin in, turn it on.

After when the Zune HD is fully booted, keep waiting for your metadata files to be exported. Your wait time may be long or short (or maybe instant) and will depend on how many artists you have on your Zune device. While you are using mTail you may or may not see any requests in the access.log file during the artists scanning process.

If you do hear a sound notification, then your Zune is receiving your metadata files for your artist from the Abyss server. You will also notice a group of requests that have been made. - Wait for about 20 seconds after the sound notification just so the transition of the metadata files is complete.

After when the 20 seconds is up, Go to your Zune HD, then to the music library and then to your artists header that you have just transferred to your device. You should see your images and your biography (Also, you should also see the thumbnail of the artist on the main menu under "History" by clicking on the "play" arrow by the artists name on the artists scroll down menu).

After when you got all of your images and biography on your Zune, You can turn off the Abyss server by clicking on that small blue icon next to the clock on the taskbar and click "**Exit**" and then it will show a dialog box prompting "Stop the server and exit": you click "**Yes**" (See images below in order). You can also close mTail by clicking on "**Stop**" which is located on the upper right and close the program.



You can now transfer all of your music files of the same artist to your Zune HD. Then when you are done, you can delete the UUID Header from you Zune software music library and also delete the UUID audio file from your Zune HD device while you leave your images and biography in tact as long as your artists music are still in your Zune player.

You can go ahead and delete the "htdocs" folder and the "abyss.conf" file in the Abyss Web Server folder so that you can down the road put in replacements the next time you start a new artist with a new folder. Or unless you are an advanced user, you can put your originals back in place.

Also, go and delete the "access.log" file which is in the "Log" folder in the Abyss Web Server folder. A new one will be created the next time you start the server.

Keep your artist folder that contains your images and biography and archive it, or leave it in the Zune HD Metadata folder, along with all the unused folders that you may use in the future for new artists. You can reuse your artists folder just in case you have to reformat your Zune HD player or if you do get another one.

IF SOMETHING GOES WRONG.....

I have troubleshooted this numerous of times with my Zune HD and my computer and have never had any issues with it. However if something does go wrong, there are a few possiblities of why it won't work:

The first one is do you have a solid local area network connection? - Are you connected to your router?

The common one is that your IPv4 address may have changed. If it has, then your Zune HD won't be able to communicate with the Abyss Web Server. So you may want to check into it by following a part at the end of the "Configuring the hosts file" tutorial.

If any of these are the cause and the issue has been fixed then first - go ahead and delete the UUID header that is already inside the Zune HD device, then restart the Zune by turning it off then turning it back on. Then, go connect your Zune to your computer, drag the UUID Header back to your Zune device by using the Zune software and then, follow the procedure to export metadata to your Zune HD as described previously.

I hope that you find this tutorial very helpful with no issues. Because of how old the Zune HD is, I do not believe that this innovated music player will be nailed in the coffin! - But anyway - we need to keep the Zune legacy alive! - Feel free to share this tutorial with other Zunesters: